Evaluating the Economic Impacts of a Tourism: A Municipalities Input-Output Model

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Abstract:
In this study, we develop a methodology to evaluate the economic impacts in the Sightseeing Area (Kankouken). The sightseeing area is generally composed by several cities, towns and villages. To evaluate the spillover effects of tourism in a spatial context, we estimate the inter-regional input-output table at municipality level in Shizuoka prefecture. Based on the number of visitors and people to stay in each cities and towns, we evaluate the economic impacts of local tourism in Shizuoka prefecture. We propose a method to find a suitable tourism regional block using intra-regional effects and inter-regional spillover effects.

Keywords: Economic Impacts, Tourism, Inter-regional Input-Output Table

1. Introduction
In 2010, the Japanese government unveiled a growth strategy for the country that included as one particular item “building a tourism-driven nation / revitalizing regional economies.” Tourism is regarded not only as contributing to the economies of the regions being visited, but also as having an economic spillover effect on neighboring regions. In the 1980s, resorts were developed in various areas of Japan utilizing private-sector initiatives. The Resort Act - formally, the Act on the Development of Comprehensive Resort Areas - went into effect around this time, after which new resorts were planned in 42 different regions. Although these resort plans were scaled back after the asset bubble burst, the Tourism Nation Promotion Basic Law of 2006 induced a major shift toward creating tourism-positive government policy. Then, the Japan Tourism Agency was formed in 2008. This led to progress in the government’s plan to develop sightseeing areas, and regional vitalization through tourism is an important part of the government’s new growth strategy.

Regional tourism revitalization involves promotion of inter-regional partnerships; economic innovation (improving service-industry productivity, reforming business models, etc.); regional resources; and social infrastructure improvements. In tourism regions, this necessitates clarifying how tourism industry affects the regional economy so that policies can be drafted and tourism can be managed in a strategic fashion.

As Japan evolves into a tourism-based nation, the state of the country’s tourism industry and its regional economies needs to be clarified in order to elicit a clear vision for the future. To that end, we must set up a framework for gauging how the tourism industry affects the economies of regions where sightseeing areas are located. This study focuses on the undeveloped field of research in tourism economics that deals with the economic impact on sightseeing areas that consist of several cities, towns, and villages.
The purpose of this study is to clarify the state of the tourism industry in Japan, create statistical indexes for tourism in sightseeing areas, and build an economic model for sightseeing areas that takes into account the composition of local industries and the transactions among them. With a focus on Shizuoka Prefecture, this paper will compute local inter-regional input-output tables and propose a method for estimating the effects of regional partnerships in tourism that incorporates inter-regional economic transactions. It will compare selected key tourism regions by using this newly developed method to estimate the economic effects generated by such partnerships.

The term “sightseeing area” denotes a group of tourism sites that are closely related in terms of nature, history, culture, and the like. It originates from the government policy of promoting partnerships among tourism-related players in a given region and, by leveraging of a wide range of tourism resources in that region, building a tourism region that has enough appeal to attract visitors who will stay in and travel around that region. The Japan Tourism Agency uses a variety of special legal provisions to support the formation of officially recognized sightseeing areas, based on the Act for the Promotion of Tourist Visits and Stays through the Development of Tourism Zones (Tourism Zone Development Act) enacted in 2008. Enabling easier access to and between the various tourism sites and accommodations (tour content) in these sightseeing areas accelerates the construction of internationally competitive and appealing tourism areas (see Figure 1). These policies will increase the length of time that tourists stay in sightseeing areas by improving the accessibility and appeal of the various local attractions; and the longer duration of their visits is expected to make a significant contribution to regional economic vitalization through the economic effects (and spillover effects) on the sightseeing areas and their surrounding regions.

**Tourism Region Development Illustration**

- **Design basic business policy**
  - Basic concept for business in the sightseeing area
  - Define policy on roles of each business and its potential partnerships, and share with all parties concerned

- **Promote tourism areas with the support of the local community**
  - Cultivate talent invested in building tourism regions by incorporating the involvement and opinions of local citizens

- **Promote tourist visits/stays**
  - Offer an appealing tour program that combines lodging with transportation around the area

- **Enhance attractiveness of accommodations**
  - Improve tour content

- **Improve ease of transportation**
  - Improve tourist information services

**Figure 1: Tourism Zone Development (Source: Japan Tourism Agency website)**

Under the December 2012 revision of the Tourism Zone Development Act, thirteen plans for the development of tourism zones were approved: six in 2013, four in 2014, and three in 2015.
Table 1: Approved Tourism Zones (2013-2015)

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<th>Year of Approval</th>
<th>Sightseeing Areas</th>
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When a tourism zone development plan is approved, that plan becomes eligible for government support, including subsidies from a special agricultural, forestry and fishery vitalization project, joint transportation passes, official tourism information centers, and special provisions under the Act on Development of Hotels for Inbound Tourists, the Road Transport Vehicle Act, the Marine Transportation Act, and the Travel Agency Act.

Input-Output approach is a powerful method of economic analysis of tourism at regional level. Dwyer et al. (2012) offered comprehensive reviews for research methods in Tourism. Kumar and Kosova (2013) focused on the reviews for input-output and CGE modeling approach. Using Input-Output model, Baster (1980) evaluated the direct and indirect effects of tourism on income, employment, and output in Scotland. Archer (1995) compared the results of three separate input-output studies carried out to measure the contribution of international tourism to the economy of Bermuda. West and Gamage (2001) developed a nonlinear input-output model and distinguished four kinds of tourism, international, interstate, intrastate, and day-trippers.

Tourism generates also spatial spillovers to other regions. In the multi-regional setting, the intra-regional and inter-regional economic multipliers or spatial spillover effects are importance issue. Kadiyali and Kosova (2013) estimated the inter-industry employment spillovers using the 43 US metropolitan areas. Balli et al. (2015) investigated the linkages between the international tourism demands across tourism regions in the New Zealand using a multivariate AR-GARCH model to estimate the spillover effects. Incera et al. (2015) analyzed the spatial interaction between Galicia and the rest of Spain economies. An interregional input-output model is applied and they considered three different kinds of tourism consumption, two inbound and a domestic one.

Existing research on Japanese sightseeing areas includes work by Katayama et al. (2016) about building a tourism zone in Sasebo/Ojika. Also, Nomura et al. (2011) have proposed a method for measuring the impact of sightseeing tours in Yamaguchi Prefecture. However, research is largely nonexistent on methods for measuring the economic effects on each municipality and between municipalities that constitute sightseeing areas.

In this paper, we will develop a method for measuring the economic effects of partnerships in sightseeing areas that consist of multiple municipalities. With a focus on Shizuoka Prefecture, we will compute inter-regional input-output tables and propose a method for measuring the economic impact generated by guest arrivals and tourism in the relevant municipalities.